AMENDMENTS TO THE CLAIMS

Please replace all prior versions, and listings, of claims in the application with the following list of claims:

1. (Original) A method for in vitro production of regulatory T cells, comprising:

introducing an amount of hematopoietic progenitor cells and an amount of lymphoreticular stromal cells capable of mitosis into an open cell porous, solid matrix having interconnected pores of a pore size sufficient to permit the hematopoietic progenitor cells and the lymphoreticular stromal cells to grow in the matrix,

co-culturing the hematopoietic progenitor cells and the lymphoreticular stromal cells, and

isolating regulatory T cells from the cultured cells,

wherein the lymphoreticular stromal cells are derived from at least one lymphoid soft tissue selected from the group consisting of thymus, spleen, liver, lymph node, skin, tonsil, Peyer's patches and combinations thereof, and comprise one of more of fibroblasts, keratinocytes, epithelial cells, dendritic cells (DCs), and antigen presenting cells; and the amount of the lymphoreticular stromal cells is sufficient to support the growth and differentiation of the hematopoietic progenitor cells.

2. (Original) The method of claim 1, wherein the hematopoietic progenitor cells and the lymphoreticular stromal cells are co-cultured in the presence of IL-7 and IL-15.

3. (Original) The method of claim 1, wherein the hematopoietic progenitor cells and the lymphoreticular stromal cells are of human origin.

4. (Original) The method of claim 1, wherein the hematopoietic progenitor cells and the lymphoreticular stromal cells are of murine origin.

5. (Original) The method of claim 1, wherein the regulatory T cells are isolated based on CD4+CD25+ phenotype.

6. (Original) The method of claim 1, wherein the regulatory T cells are isolated using fluorescent activated cell sorting, affinity column separation, affinity magnetic beads, affinity magnetic particles, complement-mediated lysis, panning, or tetrameric complex based separation.

7. (Original) The method of claim 1, wherein the hematopoietic progenitor cells are selected from the group consisting of pluripotent stem cells, multipotent progenitor cells and progenitor cells committed to specific hematopoietic lineages.

8. (Original) The method of claim 1, wherein the hematopoietic progenitor cells are derived from tissue selected from the group consisting of bone marrow, peripheral blood, mobilized peripheral blood, umbilical cord blood, placental blood, lymphoid soft tissue, fetal liver, embryonic cells and aortal-gonadal-mesonephros derived cells.

9. (Original) The method of claim 8, wherein the hematopoietic progenitor cells are derived from tissue selected from the group consisting of bone marrow, mobilized peripheral blood and umbilical cord blood.

10. (Original) The method of claim 1, wherein the lymphoreticular stromal cells are seeded prior to inoculating the hematopoietic progenitor cells.

11. (Original) The method of claim 1, wherein the porous solid matrix is an open cell porous matrix having a percent open space of at least 75%.

12. (Original) The method of claim 1, wherein the porous solid matrix is an open cell porous matrix having at least 80 pores per square inch (ppi).

13. (Currently Amended) The method of claim 11[[or 12]], wherein the porous solid matrix has pores defined by interconnecting ligaments having a diameter at midpoint, on average, of less than 150 μm.

14. (Original) The method of claim 1, wherein the porous, solid matrix having seeded hematopoietic progenitor cells and their progeny, and lymphoreticular stromal cells, is impregnated with a gelatinous agent that occupies pores of the matrix.

15. (Original) The method of claim 1, wherein the lymphoid soft tissue is selected from the group consisting of thymus and skin.

16. (Original) The method of claim 15, wherein the progenitor cells committed to specific hematopoietic lineages are committed to a T cell lineage.

17. (Currently Amended) The method of claim 1[[or 15]], wherein the hematopoietic progenitor cells are CD34+ cells.

18. (Original) The method of claim 1, wherein the progenitor cells are CD34+ cells, the lymphoreticular stromal cells are derived from skin, and the co-culture comprises IL-7 and IL-15.

19. (Currently Amended) The method of claim 3[[or 18]], wherein the hematopoietic progenitor cells and the lymphoreticular stromal cells are autologous to a subject to be treated with the isolated regulatory T cells.

20. (Currently Amended) The method of claim 3[[or 18]], wherein the hematopoietic progenitor cells are allogeneic and the lymphoreticular stromal cells are autologous to a subject to be treated with the isolated regulatory T cells.

21. (Currently Amended) The method of claim 11[[or 12]], wherein the porous solid matrix is a metal-coated reticulated open cell foam of carbon containing material.

22. (Original) The method of claim 21, wherein the metal is selected from the group consisting of tantalum, titanium, platinum, niobium, hafnium, tungsten, and combinations thereof, and wherein said metal is coated with a biological agent selected from

the group consisting of collagens, fibronectins, laminins, integrins, glycosaminoglycans, vitrogen, antibodies and fragments thereof, and combinations thereof.

23. (Original) The method of claim 22, wherein the metal is tantalum.

24. (Original) A method for producing a hematopoietic cell population depleted of regulatory T cells, comprising:

introducing an amount of hematopoietic progenitor cells and an amount of lymphoreticular stromal cells capable of mitosis into an open cell porous, solid matrix having interconnected pores of a pore size sufficient to permit the hematopoietic progenitor cells and the lymphoreticular stromal cells to grow in the matrix,

co-culturing the hematopoietic progenitor cells and the lymphoreticular stromal cells, and

removing regulatory T cells from the cultured cells to produce a hematopoietic cell population depleted of regulatory T cells,

wherein the lymphoreticular stromal cells are derived from at least one lymphoid soft tissue selected from the group consisting of thymus, spleen, liver, lymph node, skin, tonsil, Peyer's patches and combinations thereof, and comprises one or more of fibroblasts, keratinocytes, epithelial cells, dendritic cells (DCs), and antigen presenting cells; and the amount of the lymphoreticular stromal cells is sufficient to support the growth and differentiation of the hematopoietic progenitor cells.

25-50. (Cancelled)

51. (Currently Amended) A method for inhibiting an immune response, comprising

administering to a subject in need thereof isolated regulatory T cells produced according to claim 1[[-22 or 23]], in an amount effective to inhibit an immune response.

52-73. (Cancelled)

74. (Original) A method for increasing immune reactivity of a transplanted cell population, comprising

administering to a subject in need thereof a cell population depleted of regulatory T cells.

75-79. (Cancelled)

80. (Currently Amended) An isolated population of regulatory T cells produced by the method of claim 1[[-22 or 23]].